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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/368,354	08/05/1999	ROBERT R. BUCKLEY	103044	5438

7590 11/25/2003

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EXAMINER

POKRZYWA, JOSEPH R

ART UNIT	PAPER NUMBER
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2622

DATE MAILED: 11/25/2003

1a

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/368,354

Applicant(s)

BUCKLEY ET AL.

Examiner

Joseph R. Pokrzywa

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☒ Interview Summary (PTO-413) Paper No(s). 19.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____. 6) ☐ Other: _____.

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 9/10/03 has been entered.

Response to Amendment

2. Applicant's amendment was received on 9/10/03, and has been entered and made of record. Currently, **claims 1-22** are pending.

Response to Arguments

3. Applicant's arguments with respect to independent **claims 1 and 10** have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. **Claims 1-22** are rejected under 35 U.S.C. 102(e) as being anticipated by Accad (U.S. Patent Number 5,982,937).

Regarding **claim 1**, Accad discloses a method of processing image data of a color image for marking (see Figs. 1-5, and column 3, line 9 through column 4, line 3), the color image containing overmarked pixels where at least one first color is to be overmarked by a second color (see Figs. 2, 4a, and 4b, column 3, lines 31 through 57, column 6, lines 1 through 8, and column 7, line 59 through column 8, line 9), the method comprising generating information that designates the overmarked pixels (patch recognizer 120, column 3, lines 9 through 57, and column 6, lines 35 through 44), performing raster image processing to create a raster image of the color image (via the patch type discriminator 130, column 6, line 44 through column 7, line 58), the raster image processing including overmarking processing that allows both the at least one first color and the second color to be separately included in the overmarked pixels in the same raster image (column 3, line 58 through column 4, line 12, and column 9, line 34 through column 10, line 42), and modifying image data of the overmarked pixels in the raster image (through first and second compressors and decompressors 150, 160, 300, and 320, column 3, line

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58 through column 4, line 12, column 8, lines 13 through 44, and column 9, line 34 through column 10, line 42).

Regarding *claim 2*, Accad discloses the method discussed above in claim 1, and further teaches that the modifying the image data of the overmarked pixels comprises modifying image data corresponding to the at least one first color (column 8, lines 13 through 44, and column 10, lines 6 through 26).

Regarding *claim 3*, Accad discloses the method discussed above in claim 1, and further teaches of outputting the raster image, including the modified image data, to a marking driver (column 5, lines 29 through 54, wherein the reconstructed image 54 is output to print engine 70, which then outputs a printed document).

Regarding *claim 4*, Accad discloses the method discussed above in claim 1, and further teaches that the modifying image data of the overmarked pixels comprises modifying a value of the image data corresponding to the at least one first color (column 8, line 13 through column 10, line 26).

Regarding *claim 5*, Accad discloses the method discussed above in claim 4, and further teaches that the modified value of the image data corresponding to the at least one first color results in a reduced amount of marking material corresponding to the at least one first color being applied to a marking substrate (column 2, line 61 through column 3, line 57, column 4, lines 4 through 41, and column 7, lines 4 through 10, whereby the raster images are compressed, thereby reducing the amount of marking material).

Regarding *claim 6*, Accad discloses the method discussed above in claim 1, and further teaches that the generating information that designates the overmarked pixels comprises

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generating tags that correspond to the overmarked pixels (column 3, lines 25 through 66, and column 6, lines 27 through 66, being a particular patch tagged as either having Type 1 or Type 2 pixels).

Regarding *claim 7*, Accad discloses the method discussed above in claim 6, and further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 3, lines 25 through 66, and column 6, lines 9 through 66, wherein the recognized patch would be black, which is one of the primary ink colors, and be smaller in size, therein being tagged as a Type 2 patch).

Regarding *claim 8*, Accad discloses the method discussed above in claim 6, and further teaches that the overmarked pixels correspond to one of black text and a black stroke, and the tags indicate that the overmarked pixels are one of black text pixels and black stroke pixels (column 3, lines 25 through 66, and column 6, lines 9 through 58, wherein the recognized patch would be black, which is one of the primary ink colors, and be larger in size, therein being tagged as a Type 1 patch).

Regarding *claim 9*, Accad discloses the method discussed above in claim 1, and further teaches that the generating information that designates the overmarked pixels comprises performing pattern recognition that recognizes specified patterns (column 6, lines 35 through 47, and column 7, line 35 through 65), and designating pixels that form the recognized patterns as the overmarked pixels (see Figs. 4a and 4b, column 6, lines 27 through 66, and column 7, line 35 through 65).

Regarding *claim 10*, Accad discloses a system that processes image data of a color image for marking (see Figs. 1-5, and column 3, line 9 through column 4, line 3), the color image

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containing overmarked pixels where at least one first color is to be overmarked by a second color (see Figs. 2, 4a, and 4b, column 3, lines 31 through 57, column 6, lines 1 through 8, and column 7, line 59 through column 8, line 9), the system comprising an overmarked pixel designator that generates information that designates the overmarked pixels (patch recognizer 120, column 3, lines 9 through 57, and column 6, lines 35 through 44), a raster image processor that creates a raster image of the color image (via the patch type discriminator 130, column 6, line 44 through column 7, line 58), the raster image processor provided with an overmarking function that allows both the at least one first color and the second color to be separately included in the overmarked pixels of the same raster image (column 3, line 58 through column 4, line 12, and column 9, line 34 through column 10, line 42), and an image data modification unit that modifies image data of the overmarked pixels in the raster image (through first and second compressors and decompressors 150, 160, 300, and 320, column 3, line 58 through column 4, line 12, column 8, lines 13 through 44, and column 9, line 34 through column 10, line 42).

Regarding *claim 11*, Accad discloses the system discussed above in claim 10, and further teaches that the modified image data is image data corresponding to the at least one first color (column 8, lines 13 through 44, and column 10, lines 6 through 26).

Regarding *claim 12*, Accad discloses the system discussed above in claim 10, and further teaches of a marking driver that performs marking according to the raster image, including the modified image data (column 5, lines 29 through 54, wherein the reconstructed image 54 is output to print engine 70, which then outputs a printed document).

Regarding *claim 13*, Accad discloses the system discussed above in claim 10, and further teaches that the image data modification unit modifies a value of image data corresponding to the at least one first color (column 8, line 13 through column 10, line 26).

Regarding *claim 14*, Accad discloses the system discussed above in claim 13, and further teaches of a marking driver that performs marking according to the raster image that includes the modified image data (column 5, lines 29 through 54, wherein the reconstructed image 54 is output to print engine 70, which then outputs a printed document), wherein the marking driver marks a reduced amount of marking material corresponding to the at least one first color on a marking substrate based on the modified value of the image data corresponding to the at least one first color (column 2, line 61 through column 3, line 57, column 4, lines 4 through 41, and column 7, lines 4 through 10, whereby the raster images are compressed, thereby reducing the amount of marking material).

Regarding *claim 15*, Accad discloses the system discussed above in claim 10, and further teaches that the overmarked pixel designator comprises a tag generator that generates tags that correspond to the overmarked pixels (column 3, lines 25 through 66, and column 6, lines 27 through 66, being a particular patch tagged as either having Type 1 or Type 2 pixels).

Regarding *claim 16*, Accad discloses the system discussed above in claim 15, and further teaches that the overmarked pixels correspond to a black image and the tags indicate that the overmarked pixels are black image pixels (column 3, lines 25 through 66, and column 6, lines 9 through 66, wherein the recognized patch would be black, which is one of the primary ink colors, and be smaller in size, therein being tagged as a Type 2 patch).

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Regarding *claim 17*, Accad discloses the system discussed above in claim 15, and further teaches that the overmarked pixels correspond to one of black text and a black stroke, and the tags indicate that the overmarked pixels are one of black text pixels and black stroke pixels (column 3, lines 25 through 66, and column 6, lines 9 through 58, wherein the recognized patch would be black, which is one of the primary ink colors, and be larger in size, therein being tagged as a Type 1 patch).

Regarding *claim 18*, Accad discloses the system discussed above in claim 10, and further teaches that the overmarked pixel designator comprises a pattern recognition device that recognizes specified patterns (column 6, lines 35 through 47, and column 7, line 35 through 65), and designates pixels that form the recognized patterns as the overmarked pixels (see Figs. 4a and 4b, column 6, lines 27 through 66, and column 7, line 35 through 65).

Regarding *claim 19*, Accad discloses a printer incorporating the system set forth in claim 10 (column 5, lines 10 through 64).

Regarding *claim 20*, Accad discloses a digital copier incorporating the system set forth in claim 10 (column 5, lines 10 through 64, wherein a facsimile machine can be used as a copier by scanning data and then subsequently, printing the data).

Regarding *claim 21*, Accad discloses a storage medium (ROM 64) on which is stored a program that implements the method set forth in claim 1 (column 5, lines 10 through 64).

Regarding *claim 22*, Accad discloses a storage medium (RAM 66) on which is stored data that has been processed according to the method set forth in claim 1 (column 5, lines 10 through 64).

Citation of Pertinent Prior Art

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Holladay *et al.* (U.S. Patent Number 6,324,305) discloses a system for compressing a color pixel map representing a document by segmenting the map into two planes, then compressing the data in each plane efficiently;

Bloomquist *et al.* (U.S. Patent Number 6,295,133) discloses a system of combining first and second raster data using a digital doubleburner; and

Blurfrushan *et al.* (U.S. Patent Number 5,754,746) discloses a system for printing background and foreground colors.

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joe Pokrzywa whose telephone number is (703) 305-0146. The examiner can normally be reached on Monday-Friday, 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward L. Coles can be reached on (703) 305-4712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.



Joseph R. Pokrzywa
Examiner
Art Unit 2622

jrj